Integrated Product Team
Digital Atlas Pilot Project Working Group
Meeting Summary

February 4-5, 2003
National Coastal Data Development Center
Stennis Space Center, Mississippi

This was the first meeting of the Digital Atlas Working Group (DAWG), a subset of the Integrated Project Team (IPT). The purpose of the meeting was to draft a list of requirements for the Digital Atlas pilot project that the National Coastal Data Development Center (NCDDC) plans to build. A draft set of requirements was created, however more work and thought still needs to be done to complete the final list.

The agenda of this meeting consisted largely of presentations of the Expeditions Information System (EIS) and the Management Information System (MIS) to the group in order to more fully understand the data available for the pilot project and information that may be available for the long-term Digital Atlas.

Participants:

Russ Beard	*NCDDC*	*Kristin Heron*	*NOS/Special Projects*
Sharon Mesick	*NCDDC*	*Craig Russell*	*NOAA/OE*
Betsie Gardner	*NCDDC*	*Kevin Joy (telecon)*	*NURC NA-GL*
Fred Klein	*Mitretek*	*Julie Bosh*	*NCDDC*
Leslie Sautter	*College of Charleston*		

Housekeeping

It was decided that Sharon Mesick would be the chair of the DAWG. She will be the one to post information from the group onto the OE content management website.

Discussion

Organization of the Digital Atlas Pilot Project

The purpose of the Digital Atlas Pilot Project (DAPP) is to display a lot of data that was collected over a long period of time. It must however be organized such that it is easy to look at and navigate through for the untrained user. On the highest level, there would be certain layers with dots over them, and as the user zooms in, they would see more detailed information. General geographical areas could be color-coded on the map, and then the missions/projects could be sub-categorized by year and/or theme. It was suggested that the OE pre-proposal cover sheet be used since on it the projects are already categorized into certain pre-defined themes and geographical regions. This DAPP site also needs to have both viewing and analytical capabilities.

Content of the Pilot Project

The pilot project will focus on the South Atlantic Bight (SAB) region, since this area has some of the most complete data, most of which was collected by the EIS. There have been eight missions to the SAB region in the past two years.

Operations will be different on each mission, depending on the project and the Principal Investigator (PI). The information available will not be consistent throughout all missions, especially in the long term. The only consistent data sets will be video, still images, and audio files, which could be linked to the DAPP. Sharon would like to be able to have some data downloadable, such as CTD and sidescan available on the DAPP. The group needs to determine what the Digital Atlas should contain in future years, so that the correct metadata can be requested from the PIs.

NCDDC has the ability to build remote gateways from the DAPP to other data sources. These remote data sources however, need to be identified. Some may include MARMAP, or the Oculina database developed by Andy Shepard. Additionally, the Coastal Services Center (CSC) in Charleston is beginning a southeast GIS effort that may be helpful to this project. NCDDC would also like to include other layers in the map in addition to the basic dive information, such some nice bathymetry, the National Marine Sanctuaries, and Marine Protected Areas.

The Web site will likely contain the following features:

- An area for frequently asked questions (FAQ).
- Links to partners and other sites of interest.
- Educational resources/tools, such as Atlas inquiry tutorials that would provide compare/contrast exercises or show students how to use the GIS/data.
- NCDDC data portal that would allow a metadata search and remote data retrieval.
- Web mapping tool
    - Organize the expeditions by geographical regions, as stated on the OE pre-proposal cover sheet
        - Sub-organize by year
        - Sub organize by theme
    - Overlay data (vector and raster) from various sources using remote gateways
    - Links to multimedia data, such as video, still images, and scientific papers
- Expedition-based search component that would integrate both the NCDDC data portal and mapping.

Users

Users of this pilot project may be the 1) general public (browser), 2) educated public (ie. Sierra Club, students), 3) university educators/students, and 4) scientists (want data). According to Leslie Sautter, the 3rd category is usually left out of projects such as this. University education needs to be addressed more in its own right. It does not fall into any of the other categories. Leslie will suggest ways that this group of users can be accommodated in this site.

Information from Principal Investigators

We need to tell the PI's what metadata they need to have ready to hand over to OE. NOAA needs to ask for it, yet because the money that OE gives to the PIs is a grant rather than a contract, they cannot require that the PI deliver metadata. The major incentive for the PI could only be the hope of future funding. In reality, whatever metadata OE gets during and before the expedition is all that they are going to get in total. A dedicated OE data manager in the Office, as well as one on the ship, is really necessary to take care of this.

Public Awareness CD

According to NCDDC, OE has requested that a CD be made for public distribution. It would most likely be given to politically influential people (staffers on Capitol Hill). The idea is that it would be similar to the soon-to-be Digital Atlas site, in that it would have the same kind of interface. The

CD would show the staffers that the Digital Atlas is worthwhile and may possibly contain a link to it. It's like advertising for the Digital Atlas. The content however would likely contain only cruise reports for the various areas and possibly a broad overview with some basic data. OE needs to set the parameters for this to make it clear to NCDDC what exactly they are looking for. Unfortunately, NCDDC only had one cruise report so far!

Arcexplorer would possibly be the software used, although there may be a better option, such as Arcpublisher reader. The DAWG needs to determine if Arcexplorer is compatible with Macs and/or unix computers.

Management Information System and Expedition Information System
The MIS is a useful tool for managing project proposal information and is very good at tracking the entire project. The EIS is designed more for on-site, real-time management. The purposes and functions of the two systems vary, yet appear to have great potential to integrate in some way to provide the necessary elements for an OE data entry system that would provide the information that would be fed into the DAPP.

Because the DAPP will be focusing on the SAB region, most of the information will likely come from the EIS, since that is the system that was closely involved with those OE missions. It appears that there is plenty of information there to get started with the pilot projects, with other data sets acting only as supplementary information to broaden the scope of the project.

Other Working Groups
The public awareness CD and digital atlas should shape the requirements of the database and data entry system. There needs to be a lot of interaction.

Building the Digital Atlas Pilot Project
NCDDC has proposed to have a link from their homepage to this pilot project, as they have done with other similar projects. It would be password protected, so that only the IPT members could view it as it is being built. The general public would not have access to it. NCDDC hopes to have the progressing DAPP linked to their homepage by March.

Potential Requirements for Pilot Project Development

The following are potential requirements for the DAPP. These were discussed during the meeting, but still need to be formalized for the final requirements document.

1) The DAPP must be platform and browser independent. It must be able to function on all standard operating systems and with all standard web browsers.
2) The system must be reliable ___% of the time, to ensure a minimum level of performance. [CRAIG: SHOULDN'T WE BE AIMING FOR 100% RELIABILITY?]
3) The system should be synched and mirrored regionally to ensure efficient and effective download times. [WHAT ARE YOU TALKING ABOUT?]
4) System must contain certain foundational layers that cross all expeditions.
5) In the near term, the system must be able to display a geographic projection of the data.
6) In the long term, the system must be able to display various projections on the fly using middleware conversion tools.
7) The system should use one common standard for default data. This would likely be wgs84.
8) System must be flexible to ensure compatibility with historic and future data sets resulting from OE cruises
9) System must utilize distributed data network systems such as gateways for integration of foundation and topical data layers.

10) System must be able to export or allow users to download information in variety of standard formats (shp, mif, jpg, tiff, pdf, doc, xls, txt, grid, etc.)
11) All data in the DAPP must possess reliable FGDC standard metadata.
12) System must be able to display data on multiple levels and at different details (activity, cruise, and project).
13) System must meet the needs of multiple levels of users (public, K-12, college/academia, scientists, managers, policymakers).
14) System must provide query or access to data based on themes (NOAA, OE, general, etc.).
15) System must be able to integrate with future methods of data collection, organization, access, and archive tools for total access to data.

Action Items

The following items are immediate action items and should be completed by the assigned person before the next meeting of the DAWG:

Who	*Action Item*
Each DAWG member	Identify and list potential or known sources of base layers and cruise data for inclusion or integration through gateway access into the pilot project (MIS, EIS, archived files or media, other databases, GIS, etc.) and provide list to Craig.Russell@noaa.gov.
Craig Russell	Talk with John McDonough about acquiring copies of the proposal cover sheets, cruise plans, cruise reports, and a list of data collected for each OE expedition during 2001-2003.
Craig Russell	Talk to John McDonough about acquiring OE projects spreadsheet for assessment of historic activities.
Craig Russell, Kristin Heron, Leslie Sautter, &/or John McDonough	Poll PI's from 2001-2002 cruises for a list of data sets now available for inclusion into Pilot Project. It is recommended that this be in the form of a telephone call or direct email. [IS THIS REALLY A DEFINITE ACTION ITEM?]
??	Develop a list of minimal data collection requirements (process, procedures, type, format, metadata specifications, etc.) for recommendation or adoption by the Data Process working group and Cruise Report working group in order to feed the continued development of the Digital Atlas data sets (multibeam, fish counts, CTD, adcp, etc.).
??	Develop list of requirements for development of Pilot Project.
??	OE should be briefed by the IPT every 2nd month. This would mean March, May, and July. The deliverable is scheduled to be complete in August.
Leslie Sautter	Develop some scenarios, list, and/or features that should be requirements of the site for the purpose of university education.
Craig Russell	Get Sharon Mesick a temporary FileMaker Pro license to view the EIS.